

NOYMANN, Kh.

Theory of field emission from metals covered with a thin semi-conducting layer. Fiz.tver.tela 3 no.11:3395-3399 N '61.
(MIRA 14:10)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.
(Field emission)

NOYMAN, K., inzh.

Concerning article by Krushel' and others' "Operation of superimposed turbines under the conditions of alternating counter-pressure."
Teploenergetika 8 no.12:92 D '61. (MIRA 14:12)
(Steam turbines)

HOYMAN, Kh

S/181/61/003/011/024/056
B125/B102

AUTHOR: Hoymann, Kh.

TITLE: A contribution to the theory of autoelectronic emission of a metal covered with a thin semiconductor layer

PERIODICAL: Fizika tverdogo tela, v. 3, no. 11, 1961, 3395-3399

TEXT: The autoelectronic current density was calculated as a function of height and width of an additional barrier on the assumption that the surface potential of the metallic emitter can be expressed as the potential of the pure metal plus an additional potential barrier. From the general formula

$$j_{lim} = e \int_{-\chi+V_0}^{\infty} D(W, F) N(W) dW \quad (1)$$

the expression

$$j_{apea} = \frac{kT}{2\pi^2} \int_{-\chi+V_0}^{\infty} \exp \left\{ -\frac{4\sqrt{2}}{3} F^{-1} |W|^{1/2} v \left(\frac{F^{1/2}}{|W|} \right) \right\} \times \quad (4)$$

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$$\times \ln \left[1 + \exp \left\{ -\frac{W+\chi}{kT} \right\} \right] dW,$$

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is derived for the autoelectronic current density. As the integral of (4) cannot be solved for all the values of W , some simplifications are necessary: (a) For $V_0 \gg kT$, the current density is given by

$$j_{\text{auto}} = \frac{(kT)^2}{2\pi^2(1-B_1kT)} \exp\left\{-\frac{V_0}{kT}\right\} \times \exp\left\{-\frac{4\sqrt{2}}{3} F^{-1}(\chi - V_0)^{1/2} v\left(\frac{F^{-1}}{\chi - V_0}\right)\right\} \quad (7)$$

under the condition $B_1kT - 1 < 0$, which is satisfied for the temperatures and field strengths assumed. (b) If $V_0 > 0$ and of the order of kT , the current density is given by

$$j_{\text{auto}} = \frac{kT}{2\pi^2} \exp\left\{-\frac{4\sqrt{2}}{3} F^{-1}(\chi - V_0)^{1/2} v\left(\frac{F^{-1}}{\chi - V_0}\right)\right\} \times \int_{-\gamma+V_0}^{\infty} \exp\{B_1(W + \chi - V_0)\} \ln\left[1 + \exp\left\{-\frac{W + \chi}{kT}\right\}\right] dW. \quad (9).$$

(c) If $V_0 < 0$ and close to the Fermi level,

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$$j_{\text{pure}} = \frac{kT}{2\pi^2} \exp \left\{ -\frac{4\sqrt{2}}{3} F^{-1} \chi^{1/2} \left(\frac{F^{1/2}}{\chi} \right) \right\} \times$$

$$\times \int_{-\chi + \chi_0}^{\infty} \exp \{ B_2 (W + \chi) \} \ln \left[1 + \exp \left\{ -\frac{W + \chi}{kT} \right\} \right] dW, \quad (10)$$

is valid, where $B_2 = 2\sqrt{2} F^{-1} \chi^{1/2} t(F^{1/2}/\chi)$. The integrals contained in (9) and (10) can be solved only numerically. The current density of a pure metal is given by

$$j_m = (1/2\pi^2 B_2^2) \exp \left\{ -(4\sqrt{2}/3) F^{-1} \chi^{3/2} v(F^{1/2}/\chi) \right\} \quad (13).$$

In cases (a) and (b) a variation of the slope and a current drop are to be expected. In case (c) the slope does not vary, but there is a significant current drop. For a rectangular additional barrier the permeability is given by

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$$D_r = \left[1 + \frac{(k^2 + |k'|^2)^2}{4k^2 |k'|^2} \operatorname{sh}^2(|k'|l) \right]^{-1},$$

$$k^2 = \frac{2m}{\hbar^2} (W + W_a), \quad |k'|^2 = \frac{2m}{\hbar^2} (-W - \chi + V_0), \quad (14).$$

l is the width of the additional barrier, and $W = -W_a$ is the bottom of the conduction band of the metal. The total permeability being $D_z D$, the total current density is

$$j = e \int_{-\infty}^{-\chi + V_0} D(W, F) D_r(W, l) \times N(W) dW + e \int_{-\chi + V_0}^{\infty} D(W, F) \times N(W) dW. \quad (15)$$

and for $D_z \approx \text{const}$ the equation

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B125/B102

$$j = eD_z \int_{-\infty}^{-1+1} D(W, F) N(W) dW$$

$$+ e \int_{-1+1}^{\infty} D(W, F) N(W) dW \quad (16)$$

follows. A comparison of (16) with (1) gives

$$j = D_z(j_m - j_{lim}) + j_{lim} \quad (17).$$

If the experimental data for j , j_{lim} and j_m are known, V_0 and l can be estimated for any special case. The author thanks I. L. Sokol'skaya who suggested the subject of the present paper and discussed its results. There are 3 figures and 5 references: 1 Soviet and 4 non-Soviet. The three references to English-language publications read as follows:
E. L. Murphy a. R. H. Good Jr. Phys. Rev., 102, 1464, 1956; S. C. Miller a. R. H. Good Jr. Phys. Rev., 91, 174, 1953; R. E. Burgess, H. Kroemer, J. M. Houston. Phys. Rev., 90, 515, 1953.

Card 5/6

A contribution to the theory of...

S/181/61/003/011/024/056
B125/B102

ASSOCIATION: Leningrad gosudarstvennyy universitet im. A. A. Zhdanova
(Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: June 13, 1961

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Card 6/6

ACCESSION NR: AP4034926

S/0181/64/006/005/1439/1448

AUTHORS: Sokol'skaya, I. L.; Noymann, Kh.; Kloze, E.

TITLE: A study of surface migration of molybdenum by the method of field emission

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1439-1448

TOPIC TAGS: field emission, surface migration, molybdenum, autoelectronic current, activation energy

ABSTRACT: The authors used the method discussed by I. L. Sokol'skaya (ZhTF, 26, 1177, 1956; Izv. AN SSSR, 20, 1151, 1956). They determined the activation energy for the surface migration of Mo atoms along the natural lattice from a study of the temperature dependence of the time behavior and of the autoelectronic current on heating a point of monocrystalline Mo in a strong electrical field. The activation energy was found to be 2.00 ± 0.15 ev. Without the electrical field, the migration energy proved to be 2.86 ± 0.15 ev. The authors show that the difference between these values cannot be ascribed to any decrease in binding energy between surface atoms in a strong field. The effect of the field on activation energy is found to be negligible. The coefficient of surface tension, roughly computed, is 2600 dynes/cm. When the crystal point was heated in a field of positive polarity (at
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ACCESSION NR: AP4034926

the very end of the rearrangement process on the { 001 } faces) emission became very marked, increasing with time during constant anode potential. The increase in current, accompanying intense illumination in the (001) zone, frequently led to destruction of the point. This phenomenon did not appear during heating at the opposite polarity, which leads to the conclusion that it is due to the adsorption of active gases, which separate from the screen through electron bombardment and orient themselves on the surface because of the strong field. Orig. art. has: 11 figures and 1 table.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 28Nov63

ENCL: 00

SUB CODE: MM, EC

NO REF SOV: 002

OTHER: 020

Card 2/2

ACCESSION NR: AP4039663

8/0181/64/ 006/006/1744/1749

AUTHORS: Noymann, Kh.; Kloze, E.; Sokol'skaya, I. L.

TITLE: Study of diffusion processes in rhenium with the aid of a field emission microscope

SOURCE: Fizika tverdogo tela, v. 6, no. 6, 1964, 1744-1749

TOPIC TAGS: diffusion process, rhenium, field emission microscope, activation energy, tungsten, thermal conductivity, body centered lattice, face centered lattice

ABSTRACT: The process of the change of form of monocrystalline points in rhenium under the influence high temperature and strong field was investigated with the aid of a field emission microscope. The method used for measuring the activation energy of this process was described by I. L. Sokol'skaya, Kh. Noymann, and E. Kloze (FTT 6, 1439, 1964). The rhenium emitter prepared by the method described by G. N. Fursey (Avtoref. Diss. LGU, 1963) was welded to a tungsten loop from a wire 0.112 mm in diameter 50 mm long. The measurements were taken in a temperature range of 1200-1800K. The residual pressure in the apparatus was 10^{-10} mm Hg. The value for the energy of activation in the presence of a

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ACCESSION NR: AP4039663

field was 1.5 ± 0.15 ev, while the energy of activation in the absence of field had the values of 1.5 ± 0.15 ev and 5.3 ± 0.5 ev. Orig. art. has: 2 sets of photographs and 4 figures.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: 03Jan64

ENCL: 00

SUB CODE: SS

NO REF SOV: 003

OTHER: 027

Card: 2/2

NOYMAN, V. (g.Leningrad)

Concerning a certain method for tuning a superheterodyne. Radio
no.1:27 Ja '62. (MIRA 15:1)
(Radio--Receivers and reception)

NOYMAN, .

Dissertation: "The Effect of Caffeine, Phenamine, and Sodium Roside on Erythropoiesis in Experimental Posthemorrhagic Anemia." Cand Med Sci, First Moscow State Inst, Moscow, 1952. Referativnyi Zhurnal--Zhurnal, Moscow, No 3, Apr 54.

SC: JUM 224, 26 Nov 1954

NOYMAN, Kh.; KLOZE, E.; SOKOL'SKAYA, I.L.

Use of a field emission microscope in studying diffusion
processes in rhenium. Fiz. tver. tela. 6 no.6:1744-1747
Je '64. (MIRA 17:9)

1. Leningradskiy gosudarstvennyy universitet.

L 3348-66 EWT(m)/EPT(c)/EWA(d)/T/EMP(t)/EWP(b) LJP(c) JD/JG/WB

ACCESSION NR: AP5017291

UR/0181/65/007/007/2013/2020

AUTHOR: Noymann, Kh. ⁵⁵

TITLE: Surface migration of silicon on tungsten ^{21 21}

SOURCE: Fizika tverdogo tela, v. 7, no. 7, 1965, 2013-2020 ^{44 55}

TOPIC TAGS: silicon, tungsten, surface property, surface active agent ^{63 57 B}

ABSTRACT: The purpose of the investigation was to check on results of tests on surface migration of germanium on tungsten, carried out by I. L. Sokol'skaya and N. V. Mileshekina (FTT v. 6, 1786, 1964), who found that migration of a semiconductor on tungsten affects its emission properties. In the present investigation, the surface migration of silicon on tungsten was studied in a field-emission microscope. The experimental conditions are briefly described. The results showed the presence of two types of migration, high-temperature and low-temperature. The analogy of silicon migration with that of gas migration is confirmed. The corresponding migration energies are 0.75 ± 0.08 and 1.57 ± 0.15 eV for the low-temperature and high-temperature

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ACCESSION NR: AP5017291

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migration on the (111) face, and (0.96 ± 0.10) and (1.78 ± 0.15) eV for migration from the (011) to the (001) face. The experimental data are in good agreement with the theoretical results of M. Drechsler (Z. Elektrochemie v. 58, 327, 1954). The results also show that the presence of silicon on the tungsten surface changes the surface energy of the faces, so that a new equilibrium form with other faces is produced. 'I thank I. L. Sokol'skaya for numerous hints during the experimental work and for a discussion of the results.' Orig. art. has: 9 figures and 1 table.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University) 44.55

SUBMITTED: 29Dec64

ENCL: 00

SUB CODE: SS

NR REF SOV: 005

OTHER: 020

Card 2/2 DP

NOYSZEWSKA-WOJCIECHOWSKA, M.

Dysgonic and eugonic tubercle bacilli in cerebrospinal meningitis
in children treated with streptomycin. Gruzlica, Warsz. 20 no.1:13-
18 Jan-Feb 1951. (CLML 22:3)

1. Of the Institute of Medical Microbiology (Head--Prof. Jan Adamski,
M.D.) and of the Pediatric Clinic (Head--Prof. K. Jonscher, M. D.) of
Poznan Medical Academy.

NOYSZEWSKA-WOJCIECHOWSKA M.
(1074)

Zakład Mikrobiol. lek. i Klin. Chorob dzieci. Akad. med. w Poznaniu. Dysoniczne i eugoniczne oratki gruźlicy w zapaleniu opon mózgoworzeniowych u dzieci leczonych streptomycyna Dysonic and eugonic tubercle bacilli in the CSF of children with tb meningitis treated with streptomycin Tuberculests (Warsz.) 1952, 20/1(13-18) Tables 1

In 54 out of 92 patients the type of the bacilli was analysed. In 37 of them the bovine type was found, in 19 cases the human one. The course of the disease and response to streptomycin treatment seemed to be independent of the type of the bacilli. In patients treated with streptomycin the growth of the bacilli on Petri dishes was slower, especially in cases with clinical improvement.

Bogdanowicz - Warsaw (XX, 8, 4, 7, 15)

SO: EXCERPTA MEDICA Volume 6, Number 3, Section VIII March 1953

NOYSZEWSKI, J.

NOYSZEWSKI, J. Karpinski's machine for sowing fine seeds. p. 26.

Vol. 29, no. 12, Dec. 1955

LAS POLSKI

AGRICULTURE

Poland

So: East European Accession, Vol. 6, No. 5, May 1957

NOYSZEWSKI, Z.

NOYSZEWSKI, Z. Utensils for heating soup. p. 39.

Vol. 29, no. 9, Sept. 1955

LAS POLSKI

AGRICULTURE

Poland

So: East European Accession, Vol. 6, No. 5, May 1957

MATIKASHVILI, I.; NOZADZE, A.

Pneumatic drive for emergency braking. Avt.transp. LC no. 4:
42-43 Ap '62. (MIRA 1514)

(Motor vehicles--Brakes)

NOTADZE, A. D.

NOTADZE, A. D. --"The Filling of a Rollier-Mill Section Groove Depending on Its Profile and the Condition of Its Surface." Vys. Higher Education USSR. Georgian Order of Labor Red Banner Polytechnic Institute S. M. Kirov. Tbilisi, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SC: 'Krizhnaya Letopis', No 1, 1967

GEDEVANISHVILI, G.K. [deceased]; NOZADZE, A.D.

Filling of section grooves depending on their shape with free
widening of the rolled strip. Trudy Inst.met. AN Gruz.SSR
9:119-136 '58. (MIRA 12:8)

(Rolling (Metalwork)) (Deformations (Mechanics))

GEDEVANISHVILI, G.K. [deceased]; ~~NOZADZE, A.D.~~

Filling of section grooves depending on their shape in cases
of restrained widening of the rolled strip. Trudy Inst.met.
AM Gruz.SSR 9:137-144 '58. (MIRA 12:8)
(Rolling (Metalwork)) (Deformations (Mechanics))

NOZADZE, A.D.; VASHAKIDZE, A.S.

holding a square (or rectangular) strip in oval groove. 1947
Inst. met. AN Gruz. SSR vol. 13:211-229 1962. MIRA 1962

GEDEVANISHVILI, G.K. [deceased]; NOZADZE, A.D.

Effect of the state of the lateral surfaces of a section
wedge on groove filling with free widening of the rolled
strip. Trudy Inst.met. AN Gruz.SSR 9:145-149 '58.

(MIRA 12:8)

(Rolling (Metalwork)) (Deformations (mechanics)) (Friction)

NOZADZE, A.D.

Effect of bloom height on metal flow in shaped grooves. Trudy Inst.
met. AN Gruz. SSR 10:167-188 '60, (MIRA 13:12)
(Rolling (Metalwork))

GEDEVANISHVILI, G.K. [deceased]; NOZADZE, A.D.

Effect of bloom width on metal flow in shaped grooves. Trudy Inst.
met. AN Gruz. SSR 10:189-204 '60. (MIRA 13:12)
(Rolling (Metalwork))

NOZADZE, A.D.; VASHAKIDZE, A.S.

Studying a system of oval - square calibers. Soob. AN Gruz. SSR
25 no.2:171-178 Ag '60. (MIRA 13:11)

1. AN GruzSSR, Institut metallurgii, Tbilisi. Predstavleno chlenom-
korrespondentom Akademii F.N.Tavadze.
(Calibration) (Rolling (Metalwork))

NOZADZE, A.D.; VASHAKIDZE, A.S.

Investigating a set of rhomic and square gauges. Soob. ~~NY~~ Gruz.
SSR 25 no. 3:319-326 S '60. (MIRA 14:1)

1. Akademiya nauk Gruzinskoy SSR, Institut metallurgii, Tbilisi.
Predstavleno chlenom-korrespondentom Akademii nauk Gruzinskoy
SSR F.N. Tavadze.

(Rolling (Metalwork))

NOZADZE, Aleksandr Davidovich; LOMSADZE, Dzhamal Mikhaylovich;

[Principles of rolling mill practice] [Osnovy prokatnogo
proizvodstva. Tbilisi, Gos.izd-vo uchebno-pedagog. lit-ry
"TSodna,"] 1961. 430 p. (MIRA 16:9)
(Rolling (Metalwork))

SPY, [redacted]; NOTICE, A.D.

... trip ... then is rolling with grooved
... Cruz. ... 11:27-2:4 ...
(MIR 14:10)

(Rolling (Met. ...))
(Generations (clones))

GEDEVANISHVILI, G.E. [deceased]; NOZADZE, A.D.

Effect of the temperature of rolling on the filling of
grooved rolls. Trudy Inst. met. AN Grua. SSR 11:2 7-
287 '61. (Rolling(etalwork)) (MIRA 14:10)

NOZADZE, A.D.; VASHKIDZE, A.S.

Rolling operations using asymmetrical square roll passes. Soob. ~~AF~~ Gruz.
SSR 26 no.1:43-46 Ja '61. (MIRA 14:3)

1. Akademiya Nauk Gruzinskoy SSR, Institut metallurgii, Tbilisi.
Predstavleno chlenom-korrespondentom Akademii F.N. Tavadze.
(Rolling(Metalwork))

KURDIANI, G.P.; NOZADZE, A.D.; RAMISHVILI, Sh.D.

Determination of the contact area during rolling in roll grooves
on a tube billet mill no.900/750. Soob. AN Gruz. SSR 35 no.3:635-
640 S '64. (MIRA 17:11)

1. Institut metallurgii AN GruzSSR, Tbilisi. Predstavleno akade-
mikom F.N. Tavadze.

KHILIANI, G.P.; BROVINA, A.Ya.; DZVINSKIY, I.B.; KHEZIN, I., Sr. .

Methods of calculating the parameters of force and power in rolling in drawing gloves. Sborn. AN SSSR. Ser. Tekhn. Nauk. 1964, No. 3: 113-114. 1964.

1. Gruzinskiy Institut metallov. Submitted April 17, 1964.

KURDIANI, G.P.; ADAMIYA, R.Sh.; NOZADZE, A.D.; RAMISHVILI, Sh.D.

Using the method of electronic simulation in investigating
torque distribution on spindles. Soob. AN Gruz. SSR 39 no.1:
137-143 JI '65. (MIRA 18:10)

1. Gruzinskiy metallurgicheskiy institut. Submitted January 1,
1965.

L 16812-66 EWT(1) SCTB DD

ACC NR: AT6003987

SOURCE CODE: UR/2865/65/004/000/0518/0530

AUTHOR: Zhironkin, A. G.; Breslav, I. S.; Konza, E. A.; Nozdrachay, A. D.;
Salatsinskaya, Ye. N.; Troshikhin, G. V.; Fedorova, L. D.; Shmeleva, A. M.

ORG: none

TITLE: Effects of prolonged exposure to oxygen-enriched air on some physiological functions in animals 2

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 518-530

TOPIC TAGS: oxygen, hyperoxia, physiology, space medicine, closed ecology system

ABSTRACT: Experiments were performed on white mice kept 10 days in a closed system filled with air or a gaseous mixture containing 63% oxygen to determine the effects on some basic functions in relation to the length of exposure. The respiratory rate of the "oxygen" mice was noticeably slower than that of the control mice and their oxygen consumption was somewhat higher. Hyperoxia lowered thyroid function, changed hematological indices (decrease in hemoglobin concentration, number

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L 16812-66

ACC NR: AT6003887

of erythrocytes, reticulocytes, and lymphocytes), and adversely affected the central nervous system (impairment of reflexes and decrease in excitability of some nerve centers). The changes noted were sharper after the 6th day of the experiment than after the 10th day, an indication of temporary adaptation. The authors conclude that it is relatively safe to breathe gaseous mixtures containing 63% oxygen for a 10 day period. However, the changes appearing on and after the 10th day, especially in the lungs and blood, are the initial signs of the pathological action of oxygen. Orig. art. has: 7 figures.

SUB CODE: 06/ SUBM DATE: 00/ ORIG REF: 043/ OTH REF: 013

Card 2/2 *net*

GRISHKOV, A.I., kand.tekhn.nauk; KURDIANI, G.P.; NOZADZE, A.D.

Reviews and bibliography. Stal' 25 no.3:255-256 Mr '65. (MIRA 18:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P.Bardina (for Grishkov). 2. Rustavskiy metallurgicheskiy zavod i Institut metallurgii Gruzinskoy SSR (for Kurdiani, Nozadze).

NOZADZE, A.Sh.

Determining parameters of sing-phase, commercial-frequency,
electric traction rail circuits. Soob.AN Gruz.SSR 26 no.2:
175-180 '61. (MIRA 14:4)

1. Akademiya nauk Gruzinskoy SSR, Institut energetiki im. A.N.
Didebulidze, Tbilisi. Predstavleno chelnom-korrespondentom
Akademii O.D.Oniashvili.
(Electric railroads--Current supply)

NOZADZE, A.Sh.

Determining the contact resistance of alternating current track circuits. Soob. AN Gruz. SSR 27 no.4:439-444 O '61. (MIRA 15:1)

1. AN Gruzinskoy SSR, Institut energetiki imeni A.I. Didebulidze, Tbilisi. Predstavleno chlenom-korrespondent AN Gruzinskoy SSR L.G. Abelishvili.

(Electric railroads)

NOZADZE, A.Sh.

Load distribution in an a.c. track circuit. Trudy Inst.energ.AN
Gruz.SSR 16:113-118 '62. (MIRA 16:4)
(Electric railroads--Current supply)

NOZADZE, A.Sh.

A.C. track circuits with grounding stages. Trudy Inst.energ.AN
Gruz.SSR 16:127-135 '62. (MIRA 16:4)
(Electric railroads—Current supply)

NOZADZE, A.Sh.

Study of "distant ground" in a.c. track circuits. Trudy Inst.
energ. AN Gruz. SSR 17:285 '63. (MIRA 17:7)

NOVALE, A.Sh.

Determining the impedance of a.c. track circuits. Izv. vuz.
SR 36 no.1:135-138 G 1964.

1. Gruzinskiy nauchno-issledovatel'skiy institut energetiki imeni
Idebulidze. Submitted February 7, 1964.

AVALIANI, Sh.I.; NOZADZE, D.I.

Stimulating students' work in geography lessons. Geog. v
shkole 23 no. 6:46-50 M-D '60. (MIRA 13:11)

1. Kutaisskiy institut usovershenstvovaniya uchiteley
(for Avaliani). 2. 17-ya shkola g.Kutaisi (for Nozadze).
(Geography--Study and teaching)

NOZADZE, G. G., Cand of Tech Sci -- (diss) "Study of the viscosity and electrical conductivity of calcium-magnesium-phosphate-silicate fusions suitable for the production of melted magnophosphates." Moscow, 1957, 26 pp (Scientific Research Institute of Fertilizers and Insectofungicides im Prof Ya, V. Samoylov), 120 copies (KL, 30,57, 111)

NOZADZE, G.G.

Studying the viscosity and specific electric conductivity in
calcium-magnesium-phosphate-silicate fusions. Soob. AN Gruz.
SSR 19 no.5:597-604 N '57. (MIRA 11:6)

1. Nauchno-issledovatel'skiy institut po udobreniyam i insektofun-
gisidam, Moskva. Predstavleno akademikom R.I. Agladze.
(Fusion) (Electric conductivity) (Viscosity)

NOZADZE, G. G.

Phosphides of nonferrous and light metals N. N.
Pletnikov, G. G. Nozadze, and O. V. Vasilova. USSR
169,448, Pat. 23, 1969. 27. 1969. Al and other phosphides
are obtained by thermal treatment of a mixt. contg. P, C,
and the metal. As a source of P are used natura low-Fe
phosphates, such as apatite concentrate, natural phos-
phorites, and others together with a flux. M. Hosh

Distr: 4E43/4E26

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2
[Signature]

NOZADZE, G.G.

Production of fused magnesium phosphates in Georgia. Soob. AN
Gruz. SSR 20 no. 3:329-334 Mr '58. (MIRA 11:7)

1. Nauchnyy institut po udobreniyam i insektofungisidam im. prof.
Ya. V. Samoylova. Predstavleno akademikom R.I. Agladze.
(Georgia--Magnesium phosphates)
(Fertilizers and manures)

NOZADZE, G.G.

Production of fused magnesium phosphates. Seeb. AN Gruz.SSR 20
no.5:541-544 My '58. (MIRA 11:10)

1. Nauchno-issledovatel'skiy institut po udobreniyam i insekto-
fungitsidam im.Ya.V.Samoylova. Predstavleno akademikom R.I.
Agladze.

(Magnesium phosphates)

N 2-022, P 1.
3(1)

PHASE I BOOK EXPLOITATION

SOV/3099

Tbilisi. Nauchno-issledovatel'skiy gidrometeorologicheskii institut.

Trudy, Vyp. 4 (Transactions of the Tbilisi Hydrometeorological Scientific Research Institute, No. 4) Leningrad, Gidrometeoizdat, 1959. 178 p. 1,500 copies printed.

Additional Sponsoring Agency: USSR. Soviet Ministrov. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): V. P. Lominadze; Ed. (Inside book): V. D. Pisarevskaya; Tech. Ed.: N. V. Volkov.

PURPOSE: This book is intended for meteorologists and hydrologists.

COVERAGE: This is a collection of 12 articles on jet streams and turbulent currents, the analysis of the effect of orography on changes in atmospheric pressure, the characteristics of the temperature regime in the free atmosphere, the development of methods of forecasting storms, low cloud ceilings, fogs, water discharges, spring floods and various other hydrometeorological phenomena in the Transcaucasia area. Of particular interest are articles on visibility conditions around Transcaucasian airports the aerosynoptic

Card 1/4

Transactions (Cont.)

SOV/3099

conditions causing air bumpiness in the area. References accompany each article.

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Transactions (Cont.)

SOV/3099

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NOZADZE, R.I.

Determining the horizontal components of wind velocity. Trudy
Tbil.MIGMI no.5:16-27 '59. (MIRA 13:6)
(Winds)

Moza Dze, R. 1.

3(7)

PHASE I BOOK EXPLOTTATION

SOV/2592

Moscow. Tsentral'nyy institut prognozov

Voprosy dinamicheskoy meteorologii (Problems in Dynamic Meteorology) Moscow, Gidrometeoizdat, 1959. 69 p. (Series: Its Trudy, vyp. 86) Errata slip inserted. 900 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): S. A. Mashkovich; Ed. (Inside book): L. V. Blinnikov; Tech. Ed.: I. M. Zarkh.

PURPOSE: This issue of the Institute's Transactions is intended for specialists working in the field of dynamic and synoptic meteorology.

COVERAGE: This collection of articles treat problems of short-range weather forecasting using the methods of dynamic meteorology. The use of an electronic computing machine "Pogoda" in short-range (36 hours) forecasting of pressure fields at sea level and at 300 mb is described. The programming and coding system are discussed in some detail. The author concludes that the forecasting accuracy of the method he describes is on a par with

Card 1/2

Problems in Dynamic Meteorology (Cont.)

SOV/2592

corresponding statistical techniques used in non-Soviet countries. References accompany each article.

TABLE OF CONTENTS:

Belov, P. N. Short-Range Forecast of Pressure Fields by Using the Electronic Computer "Pogoda"	3
Mashkovich, S. A. Simplified Method for Integrating Vorticity Equations for Forecasting Purposes	42
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AVAILABLE: Library of Congress
Card 2/2

MM/mg
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37231

S/131/62/000/005/002/004
B105/B138

24.5500

15.2210

AUTHORS: Kutateladze, K. S., Zedginidze, Ye. N., Nozadze, T. V.

TITLE: Sheaths for immersion thermocouples for measuring the temperature of molten metals

PERIODICAL: Ogneupory, no. 5, 1962, 223-225

TEXT: The quartz sheaths used to protect the junctions of thermocouples only last for a single immersion in molten steel. Alumina sheaths with an admixture of 1% TiO_2 , made in the Podol'skiy zavod ogneupornykh izdeliy (Podol'sk Plant of Refractory Materials), will stand two immersions, and zirconium dioxide sheaths made in the Institut metallurgii Ural'skogo filiala AN SSSR (Institute of Metallurgy of the Ural Branch of the AS USSR) can be kept in molten steel for 40-50 min. Those made by the process developed by the Leningradskiy tekhnologicheskii institut im. Lensovet (Leningrad Technological Institute imeni Lensovet) last for 15 short immersions in molten steel at 1650-1720°C. This article presents the experimental results obtained for sheaths which stand

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Sheaths for immersion thermocouples ...

S/131/62/000/005/002/004
B105/B138

repeated immersion in molten metals. They were produced from a mixture of 87.5% kaolin and 12.5% aluminum powder, dried out, and burned at 1400°C in purified nitrogen. Refractoriness was 1850°C, bulk weight 1.8 g/cc, porosity 38.4% and water absorption 21.32%. Experiments in molten steel, pig iron, ferromanganese, aluminum, zinc, cadmium, lead, tin, and bismuth showed that the sheaths could stand repeated immersions at temperatures ranging from 1620° for the steel to 350° for zinc. The technology suggested is simple, and the starting materials are inexpensive. There are 4 figures. X

ASSOCIATION: NII Promstroy materialov SNKh Gruzinskoy SSR (NII of Promstroy Materials of the SNKh, Gruzinskaya SSR)

Card 2/2

NOZAKOV, N., kandidat tekhnicheskikh nauk.

Vacuum welding. Tekh. mol. 25 no.5:7-8 Vy '57.
(Electric welding) (Vacuum)

(MIRA 10:6)

POLAND / Cosmochemistry. Geochemistry.
Hydrochemistry.

D

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38147

Author : Nozanka, M.

Inst : Not given

Title : Sanidyn in the Porphyritic Rocks in the Lomnic
Region (Sudetenland).

Orig Pub : Przegląd Geol, 6, No. 6, 263, (1958) (in Polish)

Abstract : A brief description is given of sanidyn crystals.
Using data from an unpublished chemical analysis,
the author has described the basic chemical pro-
perties of the enclosing porphyritic rock. -- G.
Vorob'yev

Card 1/1

Z/040/63/000/001/003/007
E073/E492

AUTHOR: Nozar, Jaroslav

TITLE: Central airport Berlin - Schönefeld

PERIODICAL: Letecký obzor, no.1, 1963, 16-17

TEXT: Within the general plan of rebuilding the central airport, existing buildings are being used provisionally. Temporary facilities for handling domestic and foreign traffic of 1,600,000 passengers per annum with a peak handling capacity of 1100 passengers per hour were provided. Between the railway station (S-Bahn), the new passenger handling facilities and the hotel, a bus service at 10 minute intervals has been established connecting with every train. Also large parking facilities for buses and cars have been provided. Putting into operation provisional passenger handling facilities concluded the first stage of construction of the central Berlin - Schonefeld airport. The building of a 3600 m long runway to carry any type of aircraft (IL-14, IL-18, TU-104) began in 1959. The runway was operational on July 16, 1961; on October 7, 1962 the hangar was completed. The next stage envisages the construction of the passenger

Card 1/2

Central airport Berlin - Schönefeld

Z/040/63/000/001/003/007

E073/E492

handling building. The present passenger handling building will be converted into stores and freight despatching depot. Underground LPH distribution systems will be constructed so that it will eliminate refueling of aircraft from mobile systems. In front of the building a concrete passenger handling area of 200000 m² and a parking space for 5000 cars are to be provided. More concrete will be required than for the building of the 3600m long, 60m wide runway. Furthermore, a central heat supply station, a 9-storey control building, a surgery and a further hangar are to be built. Foreign passenger traffic will be handled from a hall 121m long and 20m wide. In addition to a post-office, telephone booths, cloak-rooms, ticket offices, visa sections and frontier police post, there will also be various shops selling souvenirs. From the transit hall passengers will be transported to the aircraft by buses. At the beginning of May 1962, a hotel was opened with 79 rooms containing 200 beds. The hotel is only 300m from the airport. There are 4 photographs and 1 figure.

Card 2/2

Z/032/60/010/07/010/050

E073/E335

AUTHORS: Báša, Fr., Engineer and Nožar, K.

TITLE: Manufacture of Globoidal Worm Gears ¹⁷ on Worm Milling
Machines ¹⁴

PERIODICAL: Strojirenství, 1960, Vol 10, Nr 7, pp 509 - 521

ABSTRACT: In spite of the great advantages of globoidal worm gears, they are not used in Czechoslovakia to sufficient extent. The authors published in the Nr 7, 1957, issue of Strojirenství an article relating to the calculation of globoidal gear transmissions and numerous Czech works are at present using this method for designing such gear transmissions. However, considerable difficulties have been encountered in the manufacture and the Czech manufacturers are not satisfied with the quality of the globoidal gears they produce. It is stated that this deficiency is due to incorrect technology and the aim of the paper is to supplement information given in the paper published earlier and to acquaint the Czech engineering community with the correct technology of manufacturing globoidal worm gears on current-type worm milling machines, which are available in most of the larger works. The

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Z/032/60/010/07/010/030

E073/E335

Manufacture of Globoidal Worm Gears on Worm Milling Machines

process of manufacture is dealt with in great detail, describing the entire manufacturing technology and giving a considerable number of numerical data, sketches and photographs, including sketches of the cutting-tool geometry. The description is supplemented by detailed treatment of a numerical example. There are 29 figures and 5 references, of which 1 is Czech and 4 are Soviet. ✓

ASSOCIATION: Závody V.I. Lenina, Plzeň (V.I. Lenin Works,
Pilsen)

Card 2/2

NOZAROVA, Pavla, MUDr

General examination and preparation of patients with chronic skin defects. Rozhl.chir. 33 no.1:1-4 Jan 54.

1. Klinika plasticke chirurgie, prednosta prof. Dr F.Burian, Praha
(SKIN, wounds and injuries,
management)
(WOUNDS AND INJURIES,
skin, management)

NOZDRACHEV A. D.

Country : USSR
 Category : Farm Animals. C-2
 Cattle.
 Abs. Jour : Ref Zhur-Biol., No 16, 1956, 73999
 Author : Nozdrachev, A. D.
 Institut. : Leningrad Institute for the Advanced Training of*
 Title : Anatomic-Topographical Investigation of the
 Pelvic Innervation in Cows.
 Orig. Pub. : Sh. Nauchn. tr. Leningr. in-ta usoversh. vet.
 vrachey, 1957, vyp. 11, 172-184
 Abstract : It was shown on 10 carcasses of cows aged 2-12
 years that nerves, nerve plexuses and vessels are
 situated in layers in the parietal cellular
 tissue space of the pelvis. The first layer
 consists basically of somatic nerves, the se-
 cond is mainly vascular, the third is represen-
 ted by sympathetic and parasympathetic nerves,
 by their branches, nodes and plexuses. Vaginal,
 cervical, uterine, urinary bladder, and rectal
 plexi compose the fourth layer of the pelvis.
 Card: 1/2
 *Veterinarians.

NOZDRACHEV, A.D., kand.vet.nauk

Novocaine block of the pelvic organs in cows. Veterinariia.
35 no.12:54-55 D '58. (MIRA 11:12)

1. Leningradskiy institut usovershenstvovaniya veterinarnykh
vrachey.
(Novocaine) (Veterinary obstetrics)

17(1)

AUTHOR: Nozdrachev, A. D.

SOV/20-125-2-61/64

TITLE: On the Effect of Serotonin Upon the Nervous System (O deystvii serotoninina na nervnuyu sistemu)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 454-456 (USSR)

ABSTRACT: The role of serotonin (5-hydroxy-tryptamine) in the organism and its effect on various functions more and more attract the attention of scientists (Refs 3, 4, 7-11). It is present in all human and animal organs and tissues at various levels of phylogenetic development (Ref 11). Limited and sometimes contradictory statements haven been made regarding its effect on the nervous system. The effect of serotonin on conditioned reflex activity has not yet been elucidated. This problem has gained particular importance as in other countries synthetic serotonin is used in psychiatry. The present experiment was made on 25 pigeons, 18 chicks and 7 rabbits. In pigeons a single intramuscular injection of large doses (20 - 40 mg/kg) causes general depression, disturbances of coordination, loss of the faculty of localization, muscle

Card 1/3

SOV/20-125-2-61/64

On the Effect of Serotonin Upon the Nervous System

tremor. The birds died after 11 - 21 minutes. Intravenous injection caused death either during injection or a few seconds afterwards. The pneumogram and the cardiogram show an abrupt change of respiration and heart-rhythm. Death is a consequence of suspended respiration. Small doses (0.01 mg/kg) suppress the response to external stimuli and cause a slight trembling of muscles. These changes receded after $3/4$ - 1 hour. In chicks intravenous injection of 1 - 20 mg/kg caused a violent motor and vocal reaction which lasted for 5 - 7 seconds, always accompanied by defecation and followed by a period of total immobilization, muscle atony, inclination of head. This stage was followed by one of dyspnoea and general depression, which lasted $1\frac{1}{2}$ - 2 hours. Other pathological symptoms after injection of various doses in various parts of the body are described. A tremor which constantly occurs in rabbits indicates disturbances of the function of the mesencephalon. The impairment of the flying function in pigeons as well as the adynamia in chicks and epileptomorphous attacks in rabbits indicate a disturbance of the function of subcortical centres. These investigations permit to assert that serotonin affects above all subcortical structures. There are 12 references,

Card 2/3

SOV/20-125-2-61/64

On the Effect of Serotonin Upon the Nervous System

2 of which are Soviet.

ASSOCIATION: Institut eksperimental'noy meditsiny Akademii meditsinskikh
nauk SSSR
(Institute of Experimental Medicine of the Academy of Medical
Sciences, USSR)

PRESENTED: November 24, 1958, by N. N. Anichkov, Academician

SUBMITTED: November 19, 1958

Card 3/3

NOZDRACHEV, A.D.

Experimental studies on the effect of serotonin on certain motor
functions of the organism. Fiziol. zhur. 47 no.1:115-120 Ja '61.
(MIRA 14:3)

1. From the Institute of Experimental Medicine, Leningrad.
(SEROTONIN) (MOVEMENT (PHYSIOLOGY))

BRESLAV, I.S.; ZHIRONKIN, A.G.; IL'NITSKIY, A.M.; KONZA, E.A.;
MITYUSHOV, M.I.; NOZDRACHEV, A.D.; SALATSINSKAYA, Ye.N.;
TROSHIKHIN, G.V.; SHMELEVA, A.M.

Some data on the effect of a closed space on the physiological
functions in animals. Probl.kosm.biol. 2:291-302 '62.
(MIRA 16:4)

(SPACE MEDICINE)

NOZDRACHEV, A.D.; SYRENSKIY, V.I.; SHICHKO, G.A.

Size of the dog brain before and after its fixation by perfusion of the cerebral vessels with a 10% formalin solution. Biul. eksp. biol. i med. 56 no.9:120-122 S '63.

(MIRA 17:10)

1. Iz fiziologicheskogo otdela imeni Pavlova (zav. - deystvitel'nyy chlen AMN SSSR prof. P.S. Kupalov) Instituta eksperimental'noy meditsiny (dir. - deystvitel'nyy chlen AMN SSSR prof. D.A. Biryukov), Leningrad. Predstavlena deystvitel'nyy chlenom AMN SSSR P.S. Kupalovym.

SEITSEKO, I.A.; SYRENSKIY, V.I.; NOZDRACHEV, A.D. (Leningrad)

Method for fixation of the brain through the blood vessels. Arzh.
pat. 26 no.9.71-74 '64. MIRA 1964.

1. Fiziologicheskiiy otdel imeni Pavlova (zav. - deystvitel'nyy
chlen AMN SSSR prof. P.S.Kupalov) Instituta eksperimental'noy
meditsiny AMN SSSR.

I 53922-65

ACCESSION NR: AP5017361

UR/0239/64/050/011/1400/1402

AUTHOR: Nondrachev, A. D.; Fel'cher, V. L.

TITLE: Simple arrangement for the differential separation of nerve impulses according to amplitude and their quantitative evaluation

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 50, no. 11, 1964, 1400-1402

TOPIC TAGS: nervous system, neurology, medical equipment, electronic equipment

Abstract: An electronic arrangement for recording nerve impulses is described in which the impulses are separated from background noise and then counted. Impulses above a certain amplitude, the level of which can be selected depending on the requirements of the experiment, are separated and counted separately. A record is thus obtained of 1) all impulses; 2) impulses with an amplitude above a certain level. The type of results obtained is illustrated on the example of recordings of the nerve impulses of a dog that received systematic intravenous injections of acetylcholine.

Orig. art. has 6 figures and 1 graph.

ASSOCIATION: Institut fiziologii im. I. P. Pavlova AN SSSR, Leningrad
(Institute of Physiology, AN SSSR)

Card 1/2

L 53922-65

ACCESSION NR: AP5017361

SUBMITTED: 04Dec63

ENCL: 00

SUB CODE: LS, EC

NO REF SOV: 000

OTHER: 002

JPRS

gac
Card 2/2

ACCESSION NR: AP4015154

S/0219/64/057/002/0045/0047

AUTHOR: Nozdrachev, A. D.; Fedorova, L. D.

TITLE: Interrelationships between the adrenal cortex and the thyroid under normal conditions and under conditions of cold stress

SOURCE: Byul. eksper. biologii i meditsiny*, v. 57, no. 2, 1964, 45-47

TOPIC TAGS: cold, cold stress, adrenal cortex, cortisone, thyroid gland, thyroid activity stress dependence, thyroid adrenal cortex relationship, thyroid activity cortisone suppression

ABSTRACT: Histological studies of thyroid slices stained by the method of Heidenhain, as well as estimations of thyroid weight and body weight, showed that exposure to cold stress (a constant temperature of 5C for 10 days) produced increased thyroid activity in adult male rats and mice. Administration of cortisone (0.5 mg/day i.p.) under normal conditions, in contrast, depressed thyroid activity, in agreement with reports in the literature. In rats exposed to cold, however, cortisone produced a further increase in thyroid activity. Orig. art. has: 1 table.

1/2

Card

ACCESSION NR: AP4015154

ASSOCIATION: Institut fiziologii im. I. P. Pavlova AN SSSR (Institute of Physiology)

SUBMITTED: 04Jan63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: AM

NO REF SOV: 002

OTHER: 014

2/2

Card

ZHIRONKIN, A.G.; BRESLAV, I.S.; KONZA, E.A.; NOZDRACHEV, A.D.; SALATSINSKAYA,
Ye.N.; TROSHIKHIN, G.V.; FEDOROVA, L.D.; SHMELEVA, A.M.

Effect of prolonged sojourn of animals in oxygen-enriched air
on some physiological functions. Probl. kosm. biol. 4:518-
530 '65. (MIRA 18:9)

L 14303-66 EMT(1)/EMT(m)/FS(v)-3/EMP(j) SCTB WW/DD/RD/RM
ACC NR: AT6003894

SOURCE CODE: UR/2865/65/004/000/0581/0586

AUTHOR: Nozdachev, A. D.

ORG: none

TITLE: Method for recording action currents of autonomic nerves under continuous experimental conditions 2, 44

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 581-586

TOPIC TAGS: dog, electrophysiology, autonomic nervous system, biosensor

ABSTRACT: A method for implanting electrodes in the pre- and post-ganglionic branch of the caudal mesenteric node and in sinus and splanchnic nerves is described. A 10 mm, 0.1 mm² platinum lead is employed and is soldered to flexible insulated copper wires. The following diagrams show the configuration of electrodes and nerves and the collector setup:

Card 1/4

L 14303-66

ACC NR: AT6003894

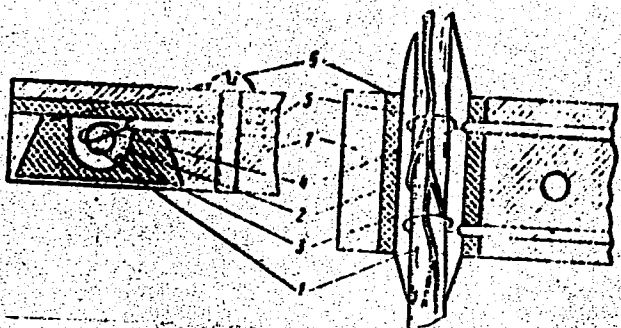


Fig. 1. Diagram of the position of the electrode and nerve in the capsule

- 1 - nerve; 2 - connective tissue coupling; 3 - vessels;
- 4 - platinum electrodes;
- 5 - flexible leads;
- 6 - fluoroplastic basin;
- 7 - plexiglass chassis.

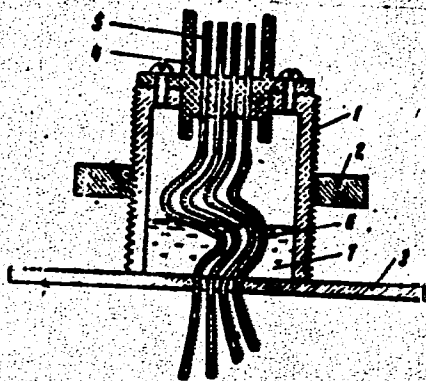


Fig. 2. Diagram of the collector

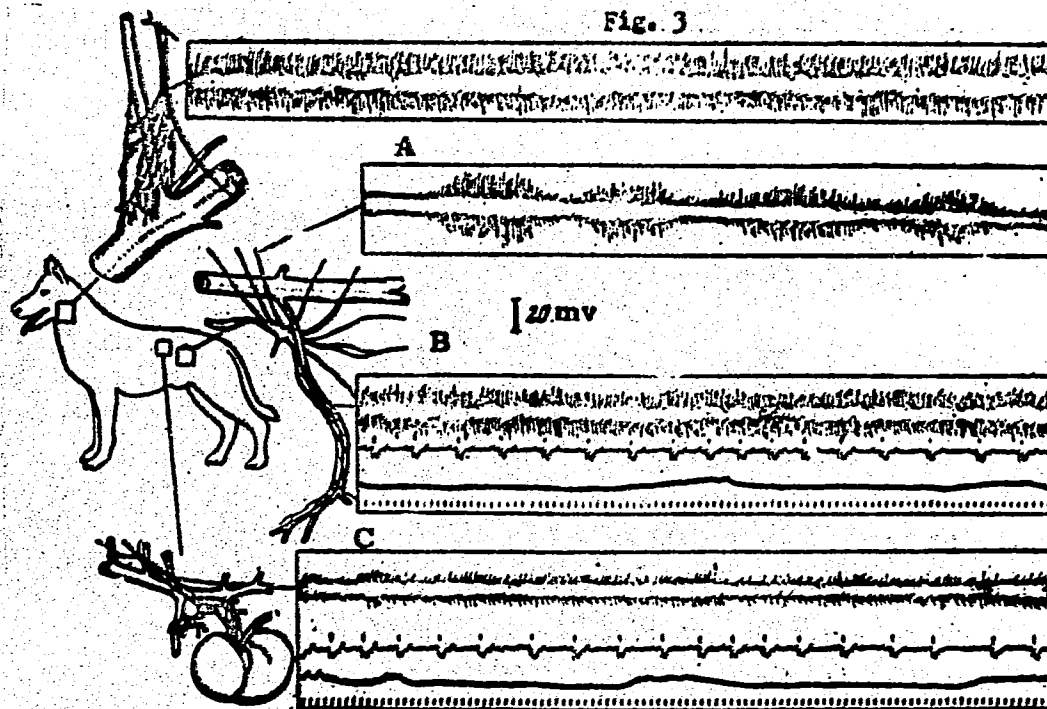
- 1 - plexiglass tube;
- 2 - movable threaded flange;
- 3 - plate;
- 4 - coupling;
- 5 - coupling pins;
- 6 - flexible leads;
- 7 - paraffin.

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L 14303-66

ACC NR: AT6003894

Fig. 3



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L 14303-66

ACC NR: AT6003894

Fig. 3. Action currents of autonomic nerves taken 10 months after electrode implantation.

A - sinus nerve; B - preganglionic branch; C - postganglionic branch of the caudal mesenteric node; D - splanchnic nerve. Time marker - 10 cps.

A detailed description of the surgical methods used in implanting the electrodes is given. It is pointed out that during the first day after implantation nerve, current deviations may be observed due to inflammation around the implantation zone, but that these disturbances usually disappear as the electrode becomes fully grounded. After a few days, a strong connective tissue sheath forms which rigidly fixes the capsule. The formation of the sheath and proper fixation of electrodes assures that the character of action currents will be consistent over a long period of time. In the author's experiments, the neurograms of dogs were unchanged after 10 months. To test the reliability of these methods, the author conducted a brief experiment on the nerves in question and found that the oscillograms of both briefly and chronically studied specimens were analogous. Fig. 3 shows the results of some chronic experiments. Orig. art. has: 3 figures. [ATD PRESS: 4091-E]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 003 /

BC
Card 4/4

L 1139-0/ EXT(1) SCIB DU/ED

ACC NR: AT6036492

SOURCE CODE: UR/0000/66/000/000/0056/0057

AUTHOR: Barutkina, T. S.; Zarubaylo, T. T.; Mityushov, M. I.; Nozdrachev, A. D.;
Panov, A. N.; Fadorova, L. D.; Shalyapina, V. G.

ORG: none

TITLE: Adrenal cortex and nervous system stress reactions ² [Paper presented at
conference on problems of space medicine held in Moscow from 24-27 May 1966]

SOURCE: Koferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy
kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii,
Moscow, 1966, 56-57

TOPIC TAGS: animal physiology, adrenal gland, nervous system, space physiology,
biologic metabolism

ABSTRACT:

For a number of years the authors' laboratory has investigated the reaction of the nervous system to various stressors (pain, electric shock, noise, cold etc.) as a function of the adrenal cortex. In chronic dog experiments using implanted electrodes, it was established that there is a decrease in afferent and efferent impulsion, which takes place within a day under the influence of stressors.

Card 1/3

L 11369-67

ACC NR: AT6036492

An injection of hydrocortisone prevents bioelectrical depression while desoxycorticosteronacetate either has no effect or a converse one by way of actually depressing bioelectric activity.

The reaction of brain catecholamines to stressors may depend on the level of peripheral blood corticosteroids. For instance, injection of large doses of hydrocortisone precludes a decrease in brain catecholamine level in response to cold. Chronic injection of "physiological doses" of hydrocortisone prevents a decrease in brain norepinephrin during the chronic application of stressors. Stress leads to a significantly greater depletion of brain catecholamine reserves in adrenalectomized animals than in intact animals.

The metabolism of the brain was studied in a resting state and during stress. The concentration of ATP, ADP, AMP, GTP, GDP, lactic, citric, pyruvic and ketoglutaric acids were determined after injection of hydrocortisone in animals in a resting state and during electrocutaneous stimulation. It was found that under these experimental conditions, which entailed prolonged (one day) irritation, metabolic indices were unchanged. Brief (45 sec) irrita-

Card 2/3

L 11369-67

ACC NR: AT6036492

tion caused an intensification of glycolysis. Injection of hydrocortisone lowered the content of ATP while the concentration of ADP, AMP, and citric acid was increased. [W. A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

L 34735-66

ACC NR: AF6025126

SOURCE CODE: UR/0239/66/052/001/0046/0056

AUTHOR: Nozdrachev, A. D.

30

B

ORG: Institute of Physiology im. I. P. Pavlov, AN SSSR, Leningrad (Institut fiziologii AN SSSR)

TITLE: Electrophysiological characteristics of afferent and efferent impulses in automatic nerves in a chronic experiment

SOURCE: Fiziologicheskii zhurnal SSSR, v. 52, no. 1, 1966, 46-56

TOPIC TAGS: dog, autonomic nervous system, heat biologic effect, biologic metabolism, neurology

ABSTRACT: Dogs were used in experiments conducted to determine the character of afferent and efferent impulses in some of the nerves of the autonomic nervous system. Electrodes were implanted into the subsplanchnic, greater splanchnic, and colon nerves. The Nozdrachev method of implantation suggested in 1963 was used. A cold block was used to interrupt nervous conductivity, and to separate the impulses and the afferent and efferent currents. It is well known that a temperature reduced to +5 degrees and lower blocks the transmission of nervous impulses by the nervous conductors. The device used to block the transmission of impulses is described. The experiments established that under conditions of a chronic experiment two types of afferent impulse potentials, a slow with an amplitude of 10-12 microvolts, and

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UDC: 612.811

0976

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L 34735-66

ACC NR: AP6025126

a rapid with oscillations registering 12 and higher microvolts are noted in the greater splanchnic nerve and the postganglionic branches of the mesenteric ganglion; group form outbreaks are characteristic of afferent impulses; these are usually synchronized with respiration and the pulse rate; afferent impulsion is intensified by acetylcholine, pain caused by an electric current, or the irrigation of serous membranes with a glucose solution; such impulsion is depressed by the administration of adrenalin or large quantities of physiological solution. Efferent impulse potentials in the greater splanchnic nerve and the postganglionic branches of the mesenteric ganglion, recorded under conditions of a chronic experiments, are noted more often in group form usually synchronized with cardiac activity and respiration, and with amplitudes of 15 to 30 microvolts and higher; nongroup forms record amplitudes of 10 to 15 microvolts. As in acute experiments the administration of acetylcholine or pain caused by an electric current intensify the frequency and amplitude of efferent impulses; adrenalin and physiological solution tend to depress them. Orig. art. has: 6 figures. [JPRS]

SUB CODE: 06 / SUBM DATE: 18Jul64 / ORIG REF: 025 / OTH REF: 009

L⁵

Card 2/2

ACC NR: AT6036663

SOURCE CODE: UR/0000/66/000/000/0291/0292

AUTHOR: Nozdrachev, A. D.

ORG: none

TITLE: Effect of steroid hormones on the character of vegetative nervous system electrical activity under stress conditions [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 291-292

TOPIC TAGS: endocrinology, animal physiology, autonomic nervous system, physiologic stress

ABSTRACT:

The afferent and efferent impulsation in sympathetic nerves and electrical activity of the lower mesenteric ganglion was studied using implanted electrodes. Also used was a special adaptation for reversibly excluding conductivity under chronic conditions and during stress against a background of steroid hormone injections.

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Dogs were placed in a special chamber. Electrocutaneous stimulus with a duration of 30 sec was rhythmically presented at 3 min intervals throughout the day. Upon termination, the magnitude of electrical reactions (in afferent and efferent nerves) to the injection of acetylcholine, adrenalin and standard stimulation of the cutaneous part of the sciatic nerve was studied.

It was found that under stress conditions, afferent impulses in response to the application of standard stimuli, studied immediately after 3, 5, 10, and 15 min after their application, statistically decreased. Here, the number of high voltage, bunched oscillations reflecting mechanoreceptor activity, as well as low voltage, unbunched oscillations reflecting chemoreceptor activity was lowered. Preliminary injection of 30 mg of desoxycorticosteronacetate did not cause the recovery of either high or low voltage impulses. In a number of cases, hormone injection enhanced a greater depression of the evoked reaction. On the other hand, injection of 125 mg of hydrocortisone prevented a decrease in the magnitude of evoked reactions to standard stimuli. This effect was exerted on both high and low voltage impulses ($p < 0.05$).

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Under stress conditions the electrical activity of the lower mesenteric ganglion was also decreased. This change, was more pronounced than afferent and efferent changes. A simultaneous decrease in the number of low voltage, unbunched, and high voltage, bunched impulses in the rhythm of pulsed jolts and respiratory movements was noted. As in the case of sympathetic impulsation, a depression of electrical activity in the ganglion was recorded immediately after application of standard stimulus and after 3, 5, 10, and 15 min. These deviations statistically differed from responses under normal conditions. On the other hand, an injection of 125 mg of hydrocortisone prevented a shift in electrical activity. Here, the number of impulses recorded did not differ from baseline data ($p < 0.05$).

The results of these observations indicate that stress conditions depress the electrical activity of sympathetic structures, that a preliminary injection of hydrocortisone prevents the development of these changes, and that desoxycorticosterone has no substantial effect.

[W. A. No. 22; ATD Report 66-116]
SUB CODE: 06 / SUBM DATE: 00May66
Card 3/3.

L 1260-66

ACCESSION NR: AP5024392

UR/0286/65/000/015/0073/0073Q
615.372.002.2

B

AUTHOR: Arkhipov, V. V.; Filonov, Yu. A.; Mechayeva, L. A.; Khrushchev, V. G.;
Perminov, T. A.; Shevyrev, M. S.; Zolozov, I. P.; Belyayev, A. S.; Mondrachev, A.
I.; Yevglevskiy, A. A.

TITLE: A method for manufacturing tuberculin. Class 30, No. 173381

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 73

TOPIC TAGS: tuberculosis, immunology, allergen

ABSTRACT: This Author's Certificate introduces a method for manufacturing tuberculin. The method consists of growing a tubercular culture on a nutrient medium, removal of the bacterial matter and filtration. An active and specific allergen is produced and labor-consuming operations are reduced by exposing the culture to Co^{60} γ -radiation.

ASSOCIATION: none

SUBMITTED: 11Jun64

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: LS

Card

USSR / Farm Animals. Small Horned Stock. 2

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40452.

Author : ~~Nozdrachev I. P.~~ Krymskiy S. S.

Inst : Not given.

Title : Sheep Breeding in Kazakhstan.

Orig Pub: Ovtsevodstvo, 1957, No 11, 31-34.

Abstract: No abstract.

Card 1/1

NOZDRACHEV, M. G., NABOKA, V. A., SAFRONOV, B. G., KALMYKOV, A. A.,
TIMOFEYEV, A. D., PANKRAT'YEV, YU, I., TERESHIN, V. I., TRUBCHANINOV, S. A.,

"Plasma Guns Investigation,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases,
Paris, France, 8-13 Jul 63

ACCESSION NR: AP4025306

S/0000/63/000/000/0163/0172

AUTHORS: Kalmykov, A. A.; Timofeyev, A. D.; Pankrat'yev, Yu. I.;
Nozdrachev, M. G.

TITLE: Investigation of a plasma source with the aid of a through
passage mass spectrometer

SOURCE: Diagnostika plazmy* (Plasma diagnostics); sb. statey.
Moscow, Gosatomizdat, 1963, 163-172

TOPIC TAGS: mass spectrometer, plasma source, plasmoid, plasmoid
acceleration, plasma injection, ion separation

ABSTRACT: In view of the lack of information on the internal structure of plasmoids and of a satisfactory description of the mechanism of plasma acceleration in different plasma guns, and in view of the difficulty of interpreting the experimental results on interaction between plasmoids and magnetic fields owing to the lack of this in-

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